

### **REMARKS**

Claims 1-29 were pending. Claims 3, 7, 10 and 20-22 were previously withdrawn from consideration, and no claims had been previously canceled. By this response, claims 1, 4, 16, 24-25 and 28 have been amended and claims 12, 17 and 29 have been canceled. Claim 30 has been added. Support for claim 30 can be found throughout the specification, and specifically in paragraph [0076]. Cancellation or amendment of any claim is not to be considered a dedication to the public of any subject matter.

Thus, claims 1-2, 4-6, 8-9, 11, 13-16, 18-19, 23-28 and 30 are currently under consideration.

### **INFORMATION DISCLOSURE STATEMENTS**

Applicant notes that Information Disclosure Statements filed 3/8/2005, 6/20/2005, 9/22/2005, and 6/12/2006 have not been acknowledged. It is respectfully requested that these Information Disclosure Statements be considered and the PTO Forms 1449 initialed and returned with the next Action.

### **CLAIM REJECTIONS UNDER 35 U.S.C. § 112**

Claims 2, 4, 8, 9, 11, 12, 16, 24, 25 and 28 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

#### **Claims 2 and 4**

On page 3 of the Office Action of 9/8/2009, the Examiner stated that "Claims 2 and 4 recite that the structure is 'fixed to the fastening element', but their dependency roots from claim 1 which recites that the structure is 'removably attached to the fastening element.' It is unclear how the two components can both be fixed and removably attached at the same time."

Claim 1 has been amended to remove the limitation that the structure be "removably attached to the fastening element, and now recites, "a structure attached to the fastening element". Applicant respectfully requests that the rejection of claims 2 and 4 be withdrawn.

Claims 8, 9 and 11

On page 3 of the Office Action of 9/8/2009, the Examiner stated that "Claims 8, 9, and 11 recite that the facet joint surface comprises an insert fitted into the structure, which the specification defines as element 321, but then it is unclear what the applicant is calling the structure. The elected embodiment is figure 2b, which is defined by the specification as inserting into the fastening element of figure 2a. But this leaves no element left to be called the structure. Is the applicant calling the upper portions 315a or 311a of the stem the structure? If so how is it removably attached from the fastening element 310a?"

Claim 1 has been amended to remove the limitation that the structure be "removably" attached to the fastening element, and now recites, "a structure attached to the fastening element". Referring to Fig. 2A, the structure can be element 315a, which can be attached to a fastening element (e.g., element 310a in Fig. 2A). Applicant requests that the rejection of claims 8, 9 and 11 be withdrawn.

Claim 12

On page 4 of the Office Action of 9/8/2009, the Examiner stated that "Claim 12 recites that the structure pivots with respect to the fastening element, but it is clear from figures 2a and 2b that once the structure from figure 2b is attached to the structure of 2a the only thing pivoting would be what is engaging the outer surface. The fastening element and structure of the figures would be locked in their positions."

Claim 12 has been canceled by this amendment, so the rejection is moot.

Claims 16 and 28

On page 4 of the Office Action of 9/8/2009, the Examiner stated that "Claims 16 and 28 recite that the prosthetic facet joint articulating surface is made of at least 'one selected prosthetic material' but the claims fail to define what materials are selected."

Claims 16 and 28 have been amended to recite that the prosthetic facet joint articulating surface (in claim 16) and the fastening element (in claim 28) "is made of at least one prosthetic material selected from the group consisting of polyethylene, rubber, tantalum, titanium, chrome

cobalt, surgical steel, bony in-growth material, ceramic, or artificial bone.” Applicant respectfully requests that the rejection of claims 16 and 28 be withdrawn.

Claims 24 and 25

On page 4 of the Office Action of 9/8/2009, the Examiner stated that “Claims 24 and 25 recite wherein the fastening element ‘is to the vertebra’. It is unclear what the applicant intends by this wording. Does the applicant intend the fastening element to be fastened to? Adjacent to?”

Claims 24 and 25 have been amended to recite that “the fastening element is adapted to be removably attached to the vertebra”. Applicant respectfully requests that the rejection of claims 24 and 25 be withdrawn.

**CLAIM REJECTIONS UNDER 35 U.S.C. § 102**

Claims 1, 2, 4-6, 8, 9, 11-17, 19 and 23-29 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. 5,314,486 to Zang et al. (“Zang”).

Claim 1 currently recites, in part, a prosthesis to replace all or a portion of a natural facet joint on a vertebra, comprising a fastening element adapted to be removably attached to the vertebra, a structure attached to the fastening element, the structure including a depression sized to accommodate a surgical driving tool, and a prosthetic facet joint articulating surface dimensioned to replace all or a portion of a natural facet joint on the vertebra wherein the prosthetic facet joint articulating surface removably attaches to the structure.

Zang discloses a total joint prosthetic replacement device for a metatarso-phalangeal joint. The prosthetic replacement device of Zang includes a receptacle portion (e.g., element 34 in Fig. 1) and a stem (e.g., element 36 in Fig. 1). The receptacle portion can include a chamber for receiving an insert (e.g., element 30 in Fig. 1) with a concave outer surface. The device is installed by forming a channel in an intramedullary canal and pressing the stem into the channel until the rear surfaces of the device press against the bone.

Zang does not anticipate claim 1 as Zang does not disclose, either expressly or inherently, each and every limitation of claim 1. For example, Zang does not disclose “a structure attached

to the fastening element, the structure including *a depression sized to accommodate a surgical driving tool*" (emphasis added).

In contrast to Zang, the prosthesis of the present invention includes a structure (e.g., element 315a in Fig. 2A) attached to a fastening element (e.g., element 310a in Fig. 2A), the structure including a depression (e.g., element 316a in Fig. 2A) sized to accommodate a hexagonal driver or other surgical driving tool. In the embodiment shown in Figs. 2A-2B, the fastening element can be screwed into the bone, such as with a surgical driving tool fitted in the depression, and a prosthetic facet joint articulating surface (e.g., element 320a) can be sized to fit into the depression. If the prosthesis needs to be removed from the patient, the prosthetic facet joint articulating surface can be removed from the structure, and the stem can be removed from the bone by using the depression. See, for example, paragraph [0076] of the present specification. The prosthesis of Zang does not disclose the depression of the current invention, as claimed in independent claim 1.

As such, Zang does not disclose, either expressly or inherently, each and every claim limitation of independent claim 1. Claims 2, 4-6, 8, 9, 11, 13-16, 19 and 23-28 depend from claim 1 and are not anticipated by Zang for at least the same reasons set forth above. Applicant respectfully requests the rejections to claims 1, 2, 4-6, 8, 9, 11, 13-16, 19 and 23-28 be withdrawn. New claim 30 also depends from claim 1 and thus is not anticipated by Zang for the same reasons set forth above.

#### **CLAIM REJECTIONS UNDER 35 U.S.C. § 103**

Claim 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Zang.

Claim 18 depends from claim 1 and therefore includes all of the limitations of claim 1. Zang fails to disclose or suggest all the features of claim 1, such as the structure including a depression sized to accommodate a surgical driving tool. Zang, by itself, therefore cannot render claim 18 obvious. Thus, claim 18 is patentable over Zang under § 103(a).

**CONCLUSION**

Applicants request reconsideration and allowance of all claims pending in this application. If a telephone conference would expedite prosecution of this application, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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